

IMPERILED SEA

BY

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Accepted by the faculty of the
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IMPERILED SEA

for chamber orchestra
with fixed media

2019

c. 12' 00"

for the Indiana University Chamber Orchestra

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Instrumentation

2 Flutes (2nd doubling piccolo)
2 Oboes
2 Clarinets in Bb
Bassoon
Contrabassoon

2 Horns
2 Trumpets in C
Tenor Trombone
Bass Trombone

Percussion 1:
Anvil, Chimes (F#4 only), Crotales (B4 only),
Suspended Cymbal, Vibraphone

Percussion 2:
Bass Drum, Bamboo Chimes, Large Shell Chimes, Log Drum,
Small Shell Chimes, Suspended Cymbal, Tam - Tam

Piano

Harp

Violin I
Violin II
Viola
Violoncello
Double Bass

Fixed Media (triggered by a performer)

Score in C (with standard octave transpositions)

ON FIXED MEDIA

Notes for the Performer and the Conductor

“Imperiled Sea” uses custom-designed software built in Max/MSP to create a flexible realization of the fixed media in real time during performance. Each of the 60 cues is mapped to a specific MIDI note. The electronics performer triggers each cue by pressing the corresponding key on a MIDI keyboard. Cues are not touch sensitive, and keys do NOT need to be held down for the duration of the cue. Once a key is pressed, the cue will play until it is finished, or until it is silenced by a later cue. For this reason, rhythmic precision should be the principal concern of the electronics performer. While precision is important, many of the cues are textural in nature, and do not contain discrete rhythms or pitches. This provides the conductor with a high degree of flexibility. There is no click track for “Imperiled Sea.” Throughout most of the piece, the electronics performer can simply follow the conductor like any other member of the ensemble. There are two exceptions.

Cues 14-25 (mm. 88-101), and **Cues 44-58** (mm. 249-263) are rhythmically active, and precise integration of this electronic material into the orchestra is essential to the success of the piece. The fixed media has a small amount of flexibility, but the active nature of the material requires that these two sections be performed very close to the written tempo. The fixed media contains audible discrete rhythms (notated in the score as cues in the Max/MSP staff), that the conductor should use as a checkpoint to ensure the correct tempo. For example, the descending 16th note “thunks” in m. 249 serve both to provide the tempo for m. 250, and as an audible cue for when the downbeat of m. 250 should occur. The descending thunks continue in m. 250, but as 8th notes rather than 16ths.

While cues occur in numerical order during the piece (with one exception), the software does not necessitate that cues are triggered in order. Any cue may be played at any time. There is no limit to the number of times a cue may be triggered while the software is operating. If a key is pressed, the cue will play. If that cue is already playing, it will continue to play, and another copy of the cue will begin to play at the same time. The software contains a very brief lockout period after each new MIDI message is received in order to prevent double triggering, however care should be taken to avoid pressing keys more than once, and to avoid pressing any keys by accident. While note accuracy is favorable in most performance situations, it is even more important for the electronics performer. Playing an incorrect key could result in a bombastic electronic impact while the orchestra is playing soft, delicate music! The reverse scenario is also possible.

Pressing “space bar” on the laptop will immediately silence/stop playback of all fixed media. This is useful during rehearsal, and an important failsafe in the unlikely event of some sort of sonic emergency.

TECHNICAL NOTES

TECHNICAL REQUIREMENTS

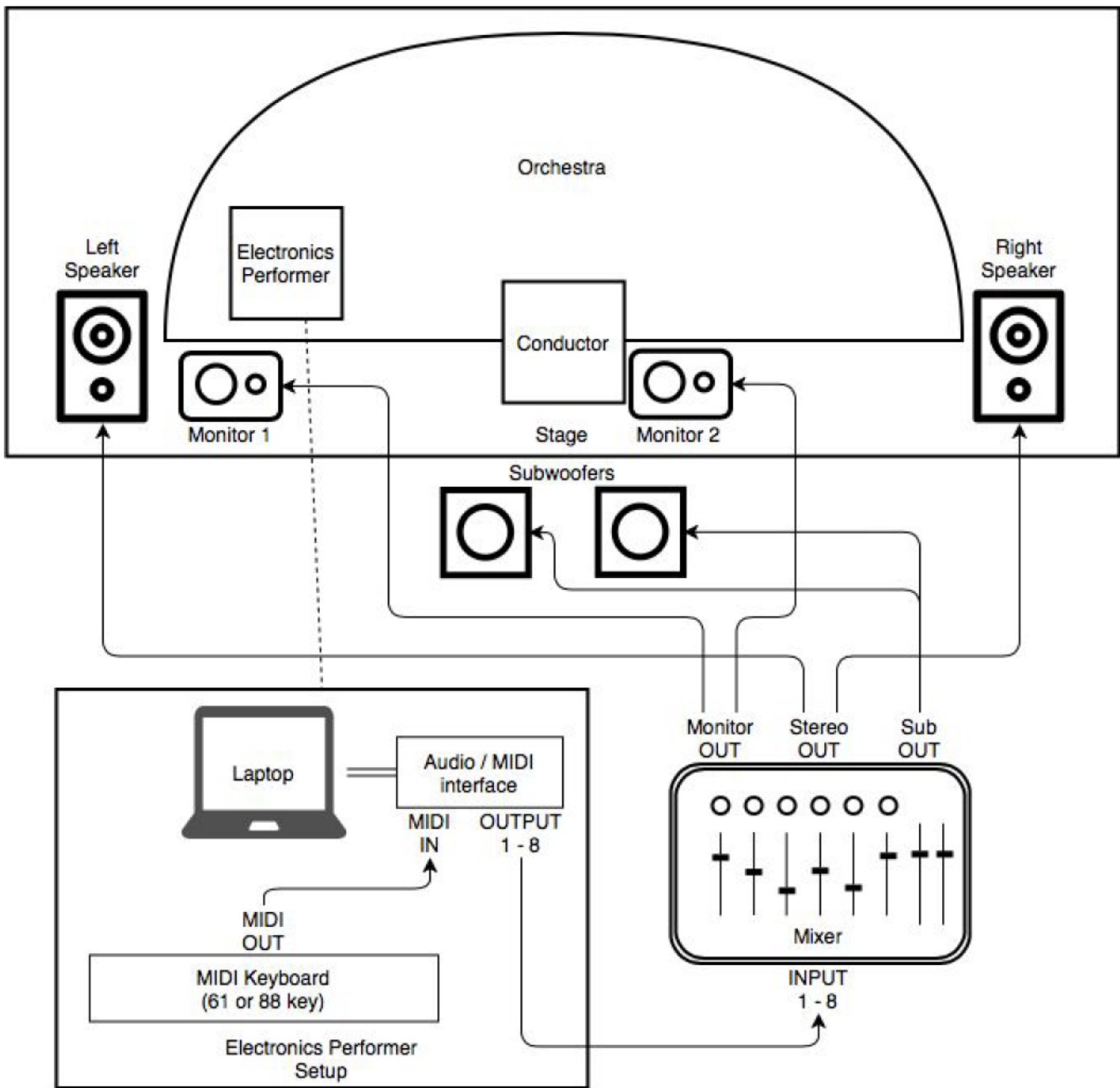
- Macbook or Windows laptop with the recommended system requirements for Max 8, or better
- Max 8
- Audio/MIDI interface with at least 8 analog outputs
- MIDI keyboard controller (61 or 88 keys)
 - * middle C = MIDI note 60, or key-mapping of cues will be incorrect.
- PA System -- mixing console, 2 loudspeakers, 1 subwoofer (although 2 subwoofers are preferable), 2 stage monitors.
 - * Additional stereo pairs of loudspeakers may be added to suit the needs of the performance venue.

The fixed media is divided into three stereo layers, for a total of 6 channels. These layers exist for the purpose of mixing during live performance, and should be mixed down to a single stereo mix in the hall. It is important for the mixing engineer to be familiar enough with the fixed media and the score to make informed decisions about balance in real time. The Max patch also provides a mono monitor mix of all fixed media. This may run through the mixing console for use in the stage monitors, or a separate monitor mix may be created at the mixing console. While it would be ideal to use the full concert technical setup for all rehearsals, the logistics of doing so may make this an impractical and unrealistic goal. If it is necessary to rehearse without the full concert setup, the monitor signal may be run through an audio interface, or directly from the laptop headphones output into a keyboard amp.

SIGNAL ROUTING FROM MAX TO THE AUDIO INTERFACE

- Channel 1 -- Mono monitor mix
- Channel 2 -- empty
- Channel 3 -- Fixed Media: LAYER 1 LEFT
- Channel 4 -- Fixed Media: LAYER 1 RIGHT
- Channel 5 -- Fixed Media: LAYER 2 LEFT
- Channel 6 -- Fixed Media: LAYER 2 RIGHT
- Channel 7 -- Fixed Media: LAYER 3 LEFT
- Channel 8 -- Fixed Media: LAYER 3 RIGHT

SUGGESTED TECHNICAL SETUP



Program Note

I am among the countless people who find inspiration in the sea. We stand in awe of its vastness, transfixed by its beauty, and fearful of its power. We are captivated by the mysteries hidden beneath its surface. The sea is at once capable of yielding ferocity and tranquility. We find spiritual awakening in communion with the ocean. We hold such deep reverence for our planet's great bodies of water, yet the sum total of human interaction with them has put the seas in peril.

This work is a contemplation of the seemingly paradoxical relationship between humanity and the oceans. It is both a lament for the sea and an alarm bell – a call to action. Overfishing, reckless offshore drilling accidents, toxic industrial runoff, excessive carbon emissions, overproduction and poor waste management of disposable plastics, these have been our contributions to the seas. We have polluted ocean waters and ravaged marine ecosystems. The natural, thriving state of the sea has become increasingly disfigured by our influence. Almost as if in retaliation, rising ocean temperatures increase the frequency and severity of devastating coastal flooding and catastrophic weather events. Thus, as we continue to threaten the sea, we threaten our own existence. This is unsustainable.

"Imperiled Sea" is scored for chamber orchestra with fixed media. The fixed media serves to expand the sonic landscape beyond that which it is possible to create with acoustic instruments alone. Rather than relying on a click track, "Imperiled Sea" uses custom designed software built in Max/MSP to create a flexible realization of the fixed media in real time during performance. Each of the electronic sound events is individually triggered by a dedicated electronics performer. The fixed media was chiefly prepared using RTcmix, a musical programming language. Many of the sounds originated as recordings of water in various forms. Samples from this source material have been distorted through digital manipulation into abstractions of their former selves. Additional sonic events were generated by subjecting recordings of other physical sound sources to a series of complex computer processes involving temporal and frequency manipulation, convolution, and spectral delay, thereby creating "watery" textures artificially. During performance, the electronic and acoustic sounds merge to create an immersive, augmented sonic experience.

A collection of oceanic imagery informs the musical language of "Imperiled Sea." The movements, sounds, sights, and physical sensations of water are reflected in instrumental and electronic gestures. The piece begins with a tumultuous fanfare. Multiple layers of disjointed motivic material fit together, while swells and bursts of sound churn in the background. This creates a disorienting sensation, as if one were caught in the currents of surging waves. The next section is marked by a sense of urgency. Waves of quickly repeating pitches emerge from one another as if tides spilling across the shore. Numerous layers of sound undergo extreme dynamic changes, generating crossfades between various pitches and timbres. Discrete voices smear together, creating the impression of larger musical ideas bending dramatically between different notes and colors, alluding to the refraction that smears and bends light as it moves through a rippling watery surface. This material gradually intensifies, building to a climactic wave of violence. As the crushing force of this wave subsides, the music drifts aimlessly out to sea, sinking into the barren depths below.

The middle third of "Imperiled Sea" offers a subdued contrast to the more aggressive outer sections. Layers of endless arpeggiation in multiple rhythmic subdivisions combine to form a murky wash of harmony. Swirls of overlapping scalar fragments mix together, evoking bubbly, rippling gestures. Flowing thematic lines drift over the surface of these watery textures, while additional smearing techniques continue to blend various timbres together. There is a searching quality in the music. While it may hope to find peace, it ultimately discovers the desolation of a suffocating ocean.

- William Trachsel, March 2020

Score in C

for the Indiana University Chamber Orchestra

Imperiled Sea

William Trachsel

♩ = 120

[illegible]

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[illegible]

[illegible]

25

30 Fixed Media Solo (16")

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Pc. 1

Pc. 2

Pn.

Hp.

To Fl.

p *ff* *mp* *fff* *p* *open* *ff*

3 4 2 4 3 4

The image displays a page from a musical score, likely for a symphony orchestra, featuring a variety of instruments and a computer music system (Max/MSP). The score is written in 3/4 time, with a tempo marking of 92 beats per minute (♩ = 92). The page is numbered 31 in the top left corner.

The instruments and parts shown include:

- Woodwinds:** Flute 1 (Fl. 1), Piccolo (Picc.), Oboe 1 (Ob. 1), Oboe 2 (Ob. 2), Clarinet 1 (Cl. 1), Clarinet 2 (Cl. 2), Bassoon (Bn.), and Contrabassoon (Cbn.).
- Brass:** Horn 1 (Hn. 1), Horn 2 (Hn. 2), Trumpet 1 (Tp. 1), Trumpet 2 (Tp. 2), Trombone (Trb.), and Baritone (Btrb.).
- Percussion:** Vibraphone (Vib.), Suspended Cymbal (Sus. Cym.), and Small Shell Chimes.
- Strings:** Violin I (Vn. I), Violin II (Vn. II), Viola (Va.), Violoncello (Vc.), and Double Bass (Db.).
- Computer Music:** Max/MSP (Max.), which includes a section for "Cue 2" (active watery, background texture) and "Cue 3" ("bowed metallic" screech).

The score includes various musical notations such as notes, rests, and articulations. Dynamic markings (e.g., *pp*, *f*, *mf*, *ppp*) and performance instructions (e.g., "harmon mute, stem in", "pizz.", "arco") are present throughout the score. The Max/MSP section at the bottom features a large, stylized number "4" and a section for "Cue 2" and "Cue 3".

38

Fl. 1 *p* *tr* *mp* *f* *p* *mf*

Fl. 2 *mf* *f* *p*

Ob. 1 *ff* *p* *p* *f*

Ob. 2 *p* *pp* *mf* *pp* *pp* *f* *p* *pp*

Cl. 1 *ff* *pp* *ff* *p* *ff* *mp*

Cl. 2 *ff* *p* *f*

Bn.

Cbn.

Hn. 1 *p*

Hn. 2

Tp. 1 *p* *mf* *pp* *p* *mf*

Tp. 2 *mf* *p* *pp* *mf* *p* *mf* *p*

Trb.

Btrb.

Vib. *ff* *f*

Pc. 2 *mp* *bamboo chimes*

Pn. *mp* *sfz* *f* *mp* *mf*

Hp. *mp* *sfz* *l.v.* *l.v. sempre* *mp* *mf* *mp*

38

Vn. I *p* *sul pont.* *f* *p* *f* *p* *ord. off the string pp*

Vn. II *f* *p* *f*

Va. *ord. pp* *sul pont. mf* *p* *pp*

Vc.

Db.

Max. *Cue 4* *shell wind chimes w/ spectral delay*

43

46

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Cue 5

splash w/ spectral delay

51

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

underwater "clang"

Cue 6

56

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

bamboo chimes

Pn.

Hp.

56

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 7

Max.

underwater "clang"

60 62 64

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 8

Cue 9

Cue 10

granular/spectral atmosphere

"submerged splash"

dripping bamboo

65

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

65

Vn. I div.

Vn. II div.

Va.

Vc.

Db.

Cue 11

"bowed metallic" screech

This page of the musical score contains the following staves and parts:

- Fl. 1:** Flute 1, starting with a *p* dynamic and featuring trills and triplets.
- Fl. 2:** Flute 2, with *ff* and *mp* dynamics, including trills and triplets.
- Ob. 1:** Oboe 1, with *ff* and *mf* dynamics, featuring trills and triplets.
- Ob. 2:** Oboe 2, with *ff* and *mf* dynamics, including trills and triplets.
- Cl. 1:** Clarinet 1, with *ff* and *mf* dynamics, featuring trills and triplets.
- Cl. 2:** Clarinet 2, with *mf* and *pp* dynamics, including trills and triplets.
- Bn.:** Bassoon, with *mf* and *pp* dynamics.
- Cbn.:** Contrabassoon, with *mf* and *pp* dynamics.
- Hn. 1:** Horn 1, with *pp* dynamics.
- Hn. 2:** Horn 2, with *pp* dynamics.
- Tp. 1:** Trumpet 1, with *p*, *mf*, and *pp* dynamics, including breath marks.
- Tp. 2:** Trumpet 2, with *f*, *pp*, *mf*, and *p* dynamics, including breath marks.
- Trb.:** Trombone, with *p* and *f* dynamics.
- Btrb.:** Baritone Trombone, with *p* and *f* dynamics.
- Vib.:** Vibraphone, with *f* dynamics.
- Pc. 2:** Percussion 2, with *mf* dynamics, including a log drum and yarn mallet.
- Pn.:** Piano, with *mf* and *f* dynamics.
- Hp.:** Harp, with *mf* and *l.v.* (left hand) dynamics.
- Vn. I div.:** Violin I, with *f* and *pp* dynamics, including a *sul pont.* (sul ponticello) instruction.
- Vn. II div.:** Violin II, with *f* and *pp* dynamics, including a *sul pont.* instruction.
- Va.:** Viola, with *f* and *p* dynamics.
- Vc.:** Violoncello, with *mf* and *pp* dynamics.
- Db.:** Double Bass, with *f* and *pp* dynamics.
- Max.:** Soloist, with *mf* dynamics, including a "submerged thunk" instruction.

75

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I div.

Vn. II div.

Va.

Vc.

Db.

Max.

ff *5* *mp* *ff* *mp* *ff* *3* *ff*

mp

mf *ff* *ff* *mf* *ff* *mf* *3* *ff*

mf *ff* *ff* *mf* *ff* *mf* *3* *ff*

mf *ff* *ff* *mf* *ff* *mf* *3* *ff*

mf *ff* *ff* *mf* *ff* *mf* *3* *ff*

f *p* *ff* *mf*

f *p*

pp *f* *pp* *f* *pp* *f* *pp*

pp *f* *p* *p* *f* *p* *3* *p*

p *p* *f* *p*

f *mf* *3* *p*

mf *9* *p*

f *mf* *3* *6* *p*

mf *5* *pp* *mf* *pp* *p* *5* *pp* *mf* *pp* *6* *pp* *6* *pp* *6*

mf *pp* *pp* *mf* *pp* *p*

mf *pp* *pp* *mf* *pp* *pp* *mf* *pp*

f *p*

This image shows a page from a musical score, likely for a symphony. The page is divided into two systems of staves. The top system includes staves for Fl. 1, Fl. 2, Ob. 1, Ob. 2, Cl. 1, Cl. 2, Bn., Cbn., Hn. 1, Hn. 2, Trp. 1, Trp. 2, Trb., Btrb., Vib., Pc. 2, Pn., Hp., and Max. The bottom system includes staves for Vn. I div., Vn. II div., Va., Vc., Db., and Max. The score features various musical notations, including notes, rests, and dynamic markings such as *mf*, *ff*, *p*, *f*, and *sfz*. There are also articulation marks like accents and slurs. A rehearsal mark '81' is present in the top right corner of the page. The bottom right corner of the page is labeled 'Cue 13'.

83

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Burb.

Vib.

Pc. 2

Pn.

Hp.

83

Vn. I div.

Vn. II div.

Va.

Vc.

Db.

Max.

93

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

93

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 18

Cue 19

Cue 20

Cue 21

Cue 22

Cue 23

Max.

swell

drips

descending swell

thunks

swell

metal scrape / fast rising pings

98

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

98

Vn. I

Vn. II

Va.

Vc.

Db.

Max

big swell

Biggest Hit

rit.

div.

Cue 24

Cue 25

104



Fl. I

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn.
1
2

Tp.
1
2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

104



Vn. I
div.

Vn. II
div.

Va.

Vc.

Db.

Max.

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1
2

Trp. 1
2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

115

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

115

Vn. I div.

Vn. II div.

Va. div.

Vc.

Db.

Max.

[illegible]

121

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

121

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 27

Max.

silent cue. triggers slow fade of cue 26

123

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

123

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

poco rit.

To Picc.

un. senza sord.
legato

legato

125♩ = 66

rit. ... ♩ = 42

Fl. 1

4

3

5

4

Fl. 2

4

3

5

4

Ob. 1

4

3

5

4

Ob. 2

4

3

5

4

Cl. 1

4

3

5

4

Cl. 2

4

3

5

4

Bn.

4

3

5

4

Cbn.

4

3

5

4

Hn. 1

4

3

5

4

Hn. 2

4

3

5

4

Trp. 1

4

3

5

4

Trp. 2

4

3

5

4

Trb.

4

3

5

4

Btrb.

4

3

5

4

Vib.

4

3

5

4

Pc. 2

4

3

5

4

Pn.

4

3

5

4

Hp.

4

3

5

4

Vn. I

4

3

5

4

Vn. II

4

3

5

4

Va.

4

3

5

4

Vc.

4

3

5

4

Db.

4

3

5

4

Max.

4

3

5

4

130♩ = 60

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

rit.♩ = 42

1

2

1

2

Trb.

Btrb.

Vib.

bamboo chimes

f large shell chimes *l.v.*

Pn.

Hp.

130♩ = 60

Vn. I div.

Vn. II

Va.

Vc.

Db.

solo

rit.♩ = 42

Cue 28

Cue 29

Cue 30

Cue 31

Cue 32

Max.

glass drone (C)

x-fade to B

page 28

138 ♩ = 84

savor each note
half breath, half pitch

Sneak into clarinet sound and "emerge."
Savor each note

a2 blow air, no pitch

blow air, no pitch

blow air, no pitch

Crotales arco To Vib. Vibes arco arco struck

small shell chimes sparse sparse full sparse bamboo chimes bamboo "sneaks" into texture

Pc. 2

Pn.

Hp.

138 ♩ = 84

solo sul tasto

sul E

solo, senza sord.
sul tasto

solo sul tasto

solo

Cue 33

x-fade to full harmonic pad
with ambient water samples

Max.

breath pitch breath ord.

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

1 Hn. 2

1 Tp. 2

Trb.

Btrb.

Vib.

(wind chimes) full sparse full sparse l.v.

Pc. 2

Pn.

Hp.

146

(solo)

Vn. I (solo)

(solo)

Vn. II (solo)

(solo)

Va. (solo)

(solo) sul tasto

Vc. (solo)

Db.

cue 33 sustains until cue 34, even while cues 31 and 32 are repeated. Cue 31 (again) Cue 32 (again) DO NOT RE-TRIGGER CUE 33

Max.

155

159

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

1. ord.

1. ord.

2. ord.

Trb.

Btrb.

Vib.

large shell chimes

Pc. 2

Pn.

Hp.

155 (solo) sul E

159

solo

Vn. I

others

Vn. II

(solo) molto sul pont.

Va.

(solo)

Vc.

Db.

Cue 34

long x-fade from cue 33 to a higher pad w/ water

163

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Trp. 1

Trb.

Btrb.

Vib.

Pc. 2
(wind chimes)

Pn.

Hp.

163 (sul E)

solo

Vn. I

others

Vn. II

Va.

Vc.

Db.

Max.

Cue 35
drone fades, water continues

170 rit. 171 ♩ = 72

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

pp

mp

mf

p

f

ppp

legato

tutti, div. con sord.

div. (con sord.)

stagger bow changes

[illegible]

The image displays a musical score for four instruments: Vibraphone (Vib.), Percussion 2 (Pc. 2), Piano (Pn.), and Harp (Hp.). The score is organized into four staves. The Vibraphone staff features a melodic line with triplet markings. The Percussion 2 staff is mostly silent, with a few notes in the third measure. The Piano and Harp staves provide harmonic support with complex chordal textures and arpeggiated figures, often marked with '5' for fifth intervals.

182

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

185

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

185

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

188 ♩ = 120

Fl. I *ff* 5 *mf* *f* *ff*

Picc. *ff* 5 *mf* *f* *ff*

Ob. 1 *pp* *mf* *pp* *p* *mf* *p* *f* *ff* *fff*

Ob. 2 *pp* *mf* *pp* *p* *mf* *p* *f* *ff* *fff*

Cl. 1 *pp* *mf* *pp* *p* *mf* *p* *f* *ff* *fff*

Cl. 2 *pp* *mf* *pp* *p* *mf* *p* *f* *ff* *fff*

Bn. *mf* *ff* *mf* *f* *ff*

Cbn. *p* *f* *p* *mf* *f* *p*

Hn. 1 *p* *mf* *p* *a2* *mf* *p* *f* *ff* *fff*

Hn. 2 *p* *mf* *p* *a2* *mf* *p* *f* *ff* *fff*

Tp. 1 *pp* *mf* *pp* *open* *metal straight mute* *mf* *p* *f* *ff*

Tp. 2 *pp* *mf* *pp* *open* *metal straight mute* *mf* *p* *f* *ff*

Trb. *f* *mp* *f* *mp* *mf* *p* *f* *ff*

Btrb. *p* *mf* *p* *f* *ff*

Vib. *To Chime* *Chime* *ff* *l.v.*

Pc. 2 *mf*

Pn. *f*

Hp. *ff* *l.v.*

188 ♩ = 120

Vn. I *ff* 5 *mf* *ff* *p*

Vn. II *ff* 5 *mf* *ff* *p*

Va. *mf* *ff* *mf* *f* *mf* *ff* *p*

Vc. *mf* *ff* *mf* *f* *mf* *ff* *p*

Db. *p* *mf* *f* *p*

Max.

194

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Pc. 1

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Tam-tam

Bass Drum

Cue 36

mf "submerged thunk"

207

Fl. 1

5

4

3

4

Picc.

5

4

3

4

Ob. 1

4

4

4

4

Ob. 2

4

4

4

4

Cl. 1

5

4

3

4

Cl. 2

5

4

3

4

Bn.

5

4

3

4

Cbn.

5

4

3

4

Hn. 1

5

4

3

4

Hn. 2

5

4

3

4

Trp. 1

5

4

3

4

Trp. 2

5

4

3

4

Trbn.

5

4

3

4

Btrbn.

5

4

3

4

Pc. 1

5

4

3

4

Pc. 2

5

4

3

4

Pn.

5

4

3

4

Hp.

5

4

3

4

207

5

4

3

4

1st desk

5

4

3

4

Vn. I

5

4

3

4

others

5

4

3

4

1st desk

5

4

3

4

Vn. II

5

4

3

4

others

5

4

3

4

Va.

5

4

3

4

Vc.

5

4

3

4

Db.

5

4

3

4

Max.

5

4

3

4

215 ♩ = 92

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vibraphone

Vib.

Pc. 2

Pn.

Hp.

215 ♩ = 92

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 38

Cue 39

"bowed metallic" screech

"submerged splash and shimmer"

221

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

221

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Cue 40

"submerged thunk and spectral dripping"

225

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

230

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

1
Hn. 2

Tp. 1

Tp. 2

Trb.

Barb.

Vib.

Pc. 2

Pn.

Hp.

230

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Cue 41

bamboo w/ spectral delay

234

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

Vn. I

Vn. II

Va.

Vc.

Db.

Cue 42

metallie shimmer

[illegible]

242

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Tp. 1

Tp. 2

Trb.

Btrb.

Vib.

Pc. 2

Pn.

Hp.

242

Vn. I div.

Vn. II div.

Va.

Vc.

Db.

Cue 43

Max.

"high shimmer"

[illegible]

258

Fl. 1

Picc.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bn.

Cbn.

Hn. 1

Hn. 2

Trp. 1

Trp. 2

Trb.

Btrb.

Pc. 1

Pc. 2

Pn.

Hp.

258

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Cue 54

hit and rising pings

"submerged thunk"

Cue 55

swell

Cue 56

metal scrape and shimmer

262 $\text{♩} = 66$ 266 Restrained

Fl. 1 **5** *mf* *ff* *fff*

Picc. *mf* *ff* *fff*

Ob. 1 **4** *mf* *ff* *fff*

Ob. 2 *mf* *ff* *fff*

Cl. 1 *mf* *ff* *fff*

Cl. 2 *mf* *ff* *fff*

Bn.

Cbn.

Hr. 1 *f* *mf* *ff*

Hr. 2 *f* *mf* *ff*

Trp. 1 *f* *mf* *ff*

Trp. 2 *f* *mf* *ff*

Trb.

Btrb.

Pc. 1 (Anvil)

Pc. 2 (B.D.)

Pn. *fff*

Hp.

[illegible]

269

(4) (8)

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

276

(12)

Vn. I

Vn. II

Va.

Vc.

Db.

Max.

Fixed Media Fades
Hold until silent

Cue 60

silent cue triggers fade

fade out